



STOCKTON-ON-TEES CORPORATION.

REPORT

OF THE

Medical Officer of Health

TO THE

TOWN COUNCIL FOR THE

YEAR 1934.

G. C. M. M'Gonigle, M.D., D.Hy., B.S., D.P.H.,

MEDICAL OFFICER OF HEALTH :

MEDICAL SUPERINTENDENT OF ISOLATION HOSPITAL :

SCHOOL MEDICAL OFFICER

Stockton-on-Tees

PRINTED BY EDWARD APPLEBY, LTD., PRINCE REGENT STREET,

23336-5-35

CONTENTS

	Page
Social Conditions	8
Area	8
Population	8
Unemployment and Poor Law Relief	8
Vital Statistics	8
Births	8
Still-births	8
Deaths	9
Infantile mortality	9
Deaths from Puerperal Causes	9
Principal causes of death	11
Notes on Death Returns	11
General Provision of Health Services	13
Laboratory Facilities	13
Ambulance Facilities	13
Home Nursing	13
Hospitals	13
Clinics and Treatment Centres	13
Midwifery and Maternity Services	13
Institutional Provision for Mothers or Children	13
Health Visitors	13
Infant Life Protection	13
Orthopædic Treatment	13
Sanitary Circumstances of the Area	13
Water	13
Rivers and Streams	13
Drainage and Sewerage	13
Closet Accommodation	13
Public Cleansing	14

	Page
Sanitary Inspection of area	14
Number and Nature of Inspections ...	14
No. of Notices served	15
Work done under Public Health Acts ...	15
Inspection of Factories, Workshops, etc. ...	16
Special classes of Premises and Occupations subject to control by the Local Authority	17
Slaughter-houses	17
Offensive Trades	17
Common Lodging Houses	17
Houses-let-in-Lodgings	18
Tents, Vans, Sheds, etc.,... ..	18
Schools	18
Housing	18
Slum Clearance	18
Number of Houses built	23
Housing Statistics	23
Inspection and Supervision of Food	25
Milk supply	25
Bacteriological Examination of milk ...	26
Tuberculosis in Milk	27
Pasteurised Milk	27
Milk (Special Designations) Order 1923 ...	27
Tuberculosis Order, 1925	27
Meat Inspection	28
Public Health (Meat) Regulations	28
Inspection of Meat—tables	28
Slaughter of Animals Act, 1933	29
Inspections of shops, stalls, etc.	29
Foodstuffs condemned	30
Food and Drugs (Adulteration) Act, 1928 ...	30
Chemical and Bacteriological Examination of Food	31

	Page
Prevalence of, and Control over, Infectious and other Diseases	31
General	31
Scarlet Fever	31
Diphtheria	33
Pneumonia	33
Disinfection	34
Bacteriological Examinations	34
Notifiable diseases—table	35
Isolation Hospitals	36
Notes on cases	37
Cancer	41
Prevention of Blindness	42
Tuberculosis, new cases and Mortality	42
Ophthalmia Neonatorum	43
Maternity and Child Welfare	44
Attendances at Centres	49-50
Home Visits paid by Health Visitors	51
Infantile mortality	52
Infantile mortality—table	55
Ante-natal Centres	56
Supervision of Midwives	58
Robson Maternity Home	59
Diseases of Animals Acts	62
Cattle Market Returns	64
Appendix	65
Table of Statistics	65
Causes of Death—table	66

BOROUGH of STOCKTON-on-TEES

TOWN COUNCIL

HIS WORSHIP THE MAYOR (Alderman W. NEWTON)

Alderman C. W. ALLISON *

„ G. H. DOUTHWAITE*

„ J. W. GARGETT, J.P.†

*Chairman Maternity and
Child Welfare Committee*

Alderman J. GOLDSTON*

Alderman E. PICKWORTH. J.P.

„ J. RILEY

„ W. J. SCAIFE*†

„ R. SPARK, J.P.*

Chairman Health Committee

Alderman W. THOMPSON

„ W. WAKE*

Councillor O. C. ATKIN

„ C. R. BOOTH †

„ H. BRIDGES, J.P.

„ W. BROWN

„ T. W. COATES*†

„ A. COLLYER†

„ D. H. DAVIS

„ H. DIXON*†

„ Mrs. M. J. FRANKLAND, J.P.*†

„ J. GIBBONS*

„ R. GIBSON*†

„ H. HAXBY

„ W. HESLOP*†

„ H. HODGSON

„ J. T JOHNSON*

„ M. M. KELLY*

„ Revd. G. J. LANE*†

Councillor A. LEWIS*

„ W. LILLYSTONE

„ J. S. LUNN

„ H. PEARSON†

„ W. J. E. RINGQUIST

„ B. S. ROBSON

„ A. ROSS

„ J. SHARKEY

„ A. SMITH†

„ A. J. THATCHER

„ G. THORNTON

„ G. T. WALLIS

„ T. A. WESTWATER

„ J. E. WILYMAN

„ W. M. WORTH

„ W. E. WRIGHT

*Members of the Health Committee.

†Members of the Maternity and Child Welfare Committee.



Digitized by the Internet Archive
in 2018 with funding from
Wellcome Library

<https://archive.org/details/b30174983>

PUBLIC HEALTH OFFICERS OF THE LOCAL AUTHORITY.

Medical.

G. C. M. M'GONIGLE, M.D., D.Hy., B.S., D.P.H.,
 Medical Officer of Health, School Medical
 Officer, Medical Superintendent of the Isolation
 Hospitals, Medical Superintendent of Robson
 Maternity Home and Inspector of Midwives ... Whole time

W. M. RITCHIE, M.B., CH.B., (Medical Practitioner),
 Deputy Medical Officer of Health, and Assistant
 Maternity and Child Welfare Medical Officer, ... Part time

A. GOMPERTZ, M.R.C.S., L.R.C.P., (Medical
 Practitioner), Assistant Maternity and Child
 Welfare Medical Officer, ... Part Time

T. J. KIRK, M.B., (Medical Practitioner), Assistant
 Maternity & Child Welfare Medical Officer ... Part time

E. B. G. EWEN, M.B., CH. B., D.P.H.,
 Assistant School Medical Officer. ... Whole time

Sanitary Staff.

E. G. POWER, A.R.S.I., Senior Sanitary Inspector ... Whole time

J. KIRBY, M.R.S.I., M.I.S.E., Cert. San. Ins. Jt. Bd.,
 Meat and Food Cert. R.S.I., San. Sc. R.S.I.,
 Sanitary Inspector ... Whole time

E. VARLEY, Cert. San. Ins. Jt. Bd., Meat and
 Food Cert. R.S.I., Sanitary Inspector ... Whole time

MISS M. JONES, Cert. R.S.I., Sanitary Inspector... Whole time

Tuberculosis Health Visitor.

MISS J. CLACHERTY, General Trained, Cert. C.M.B.,
 H.V. & School Nurse Cert. R.S.I. ... Whole time

Health Visitors.

MRS. C. CAMERON, General Trained, Cert. C.M.B.,
 (also Assistant Inspector of Midwives) ... Whole time

MISS L. CATCHPOLE, Cert. C.M.B., H.V. and Sch.
 Nurse, Cert. R.S.I. ... do.

MISS B. FIDLER, General Trained, Cert. C.M.B., do.

MISS L. JONES, General Trained, Cert. C.M.B., do.

MISS M. VEITCH, H.V. and Sch. Nurse, Cert. R.S.I.
 Cert. C.M.B., Board of Education Diploma. do.

School Nurses.

MISS M. LAMB, General Trained ... do.

MISS W. WARD, General Trained (Dental Nurse)... do

MISS M. A. ALTON, General Trained (School
 Attendance Nurse) do.

MISS O. BRYAN, General Trained ... do.

School Dental Officer.

A. E. PATTIE, L.D.S. ... do.

Veterinary Inspector.

S. E. MORTON, M.R.C.V.S. ... Part time

Clerks.

H. KIPLING, Cert. R.S.I., Chief Clerk ... Whole time

W. BAKER ... do.

MISS J. HALL, School Medical Service ... do.

MISS I. PARISH, School Medical Service ... do.

Matron of Isolation Hospitals.

MISS E. HODGSON ... do.

Matron of Robson Maternity Home.

MISS E. JEFFRIES ... do.

Health Department,
11, Finkle Street,
Stockton-on-Tees,
June 17th, 1935.

To the Town Council of the Borough of Stockton-on-Tees.

Mr. Mayor, Madam and Gentlemen,

I have the honour to submit my Annual Report upon the health of the population of the Borough of Stockton-on-Tees for the year 1934.

The state of the public health of a community is determined by the interaction of diverse influences. Some of these influences are good, some are bad; some are known, others unknown.

The task of the Public Health Service is to foster the good influences and to eliminate the bad ones, but modern civilisation has so complicated the lives of our citizens that it has become an exceedingly difficult task to assess the effects upon health of the many factors which, day by day, exert influence upon human health and human life.

The factors affecting the maintenance of health and resistance to disease of human beings may be divided, very broadly, into two main groups. There is, firstly, what may be called the personal factor—that is the condition of the body in regard to its potential capacity at any particular time to resist external influences which may cause disease or death; and secondly, external or environmental factors which may influence health. This division into two groups is arbitrary for the two overlap and are intricately interwoven. This statement may be clearer if it is understood that an external adverse factor may cause death in one individual, illness in another and in a third have no apparent ill-effect. These different results are dependent upon the capacity of the individual to resist the particular factor at the time it is operative.

The Public Health Service has, in the past, been built up upon the basal idea of ameliorating those external, environmental factors which are detrimental to health and, in the campaign against disease and death some notable victories have been won. Enteric Fever (typhoid) has been almost eliminated by the provision of pure water supplies. Epidemic infantile diarrhoea which thirty years ago killed large numbers of infants is now comparatively rare. The great diminution in the number and severity of cases of this disease may be attributed to two main changes in our environment, viz., the abolition of the old, insanitary privy midden and the supercession of horse drawn vehicles by motor traction. The old privy midden and the stable provided breeding places for flies which apparently acted as the vehicle by which the disease was conveyed from dirt to food and so to the infant. The beneficial effects of environmental improvement are pretty well understood and the only reason for the persistence of bad environmental conditions such as insanitary and overcrowded houses is financial. The public now knows much more about how to live healthily than it did a few years ago but the application of this knowledge is difficult unless local authorities continue strongly and actively to improve the environment of their populaces.

Humanity needs, in addition to a suitable material environment, the wherewithal to maintain individual fitness and resistance to disease. The dominant factor in the maintenance of health, the capacity for growth and the defence against disease is the nutritional state of the individual which can only be maintained if a diet adequate in quantity and variety be available from conception, through the ante-natal period and continued throughout infancy, adolescence and maturity. Two factors are active in determining whether this optimum state of nutrition is attained or not. The first factor is that of knowledge of what to eat. Much educational work is still required to enlighten the public in this matter. Much is being done in this respect more especially in ante-natal and child welfare centres, but more is still needed. The second factor is capacity to purchase an adequate diet. In some of my annual reports I have written at length upon the importance of nutrition, and it is unnecessary on this occasion to recapitulate all that I have

previously said. It will suffice to remind my readers that such conditions as rickets, dental decay and many other conditions are nutritional in origin and can be prevented. Under nourishment or mal-nourishment are not necessarily or commonly due to shortage of food but to lack of certain essentials for an optimum nutritional state. The superiority of steel over iron for many purposes is certain but quantitatively the elements added to the iron are small in amount. Similarly the animal body built up from foodstuffs which lack adequate proportions of certain essentials, small in amount, is structurally but cast iron instead of fine steel.

It has been stated that the principal cause of under-nourishment is a body unable to assimilate the food supplied to it day by day. I cannot subscribe to this statement which is not based upon sound biological or scientific data. Under-nourishment and mal-nutrition may be contributed to by poor environment, by overcrowding, etc., but the fundamental verity remains that the dominant factor in such conditions is dietetic.

The public health service cannot by its own efforts raise the economic level of a community or cure industrial depression but the ancillary services such as those of maternity and child welfare, unemployment insurance, public assistance and the unemployment assistance board can by a liberal and generous interpretation of their powers raise the nutritional status of certain parts of the population and so raise the powers to resist disease. The services enumerated above constitute powerful agencies in the general scheme of the public health.

I have the honour to remain,

Your obedient servant,

G. C. M. M'GONIGLE,

Medical Officer of Health.

SECTION A. — STATISTICS and SOCIAL CONDITIONS of the AREA.

Area (in acres)—Land and Inland Water ...	5,465 statute acres.
Population—At Census, 1931	67,724
—Estimated by Registrar General, June, 1934	67,220
Number of Inhabited houses (end of 1934) according to the Rate Books	16,262
Rateable value of the Borough	£311,161
Sum represented by a Penny Rate	£1,153

Social Conditions. There was a further reduction during the year in the average number of men on the unemployed register. The figure for the year 1934 being 6,200, compared with 7,206 in 1933 and 8,783 in 1932. The approximate number of cases in receipt of out-relief during the year also showed a decrease from 2,316 to 2,162. The various social services continued to render useful service in the Borough during the year.

EXTRACTS FROM VITAL STATISTICS OF THE YEAR.

Live Births :—

	No.	Males	Females	Rate per 1000 of population	
				1934	1933
Legitimate	1238	619	619	18·41	17·05
Illegitimate	55	25	30	0·82	0·86
Total	1293	644	649	19·23	17·91

Still-births :—

No.	Males	Females	Rate per 1000 Total Births.	
			1934	1933
56	32	24	41·51	40·76

Deaths :—

Total	Males	Females	Rate per 1000 of population	
			1934	1933
817	445	372	12·15	12·72

The death-rate for the year 1934, adjusted by means of the application of the Comparability Factor supplied by the Registrar General is 13·48 per 1,000 of population, compared with 11·8, the rate for England and Wales.

Deaths from Puerperal Causes.

	No.	Rate per 1000 total Births	
		1934	1933
Puerperal Sepsis	3	2·22	0·80
Other Puerperal Causes	3	2·22	4·79
Total	6	4·44	5·59

Infantile Mortality :—

					No. of Deaths	
					1934	1933
Legitimate	...	...	...	...	77	113
Illegitimate	...	...	...	...	4	3
Totals					81	116

Death-rates of Infants under one year of age :—

				1934	1933
All infants per 1,000 live births	...	...	...	62	96
Legitimate infants per 1,000 legitimate live births				62	98
Illegitimate do illegitimate do				73	51

The infantile mortality rate, i.e., the number of infants dying per 1000 live births, before attaining the age of one year, was 62. This rate is the lowest ever attained in the Borough. It is only 3 per 1000 above that for the country as a whole and is actually 1 per 1000 below the rate for the 121 county boroughs and great towns in England & Wales, in which group Stockton is included.

In the following table the Birth-rate, Death-rate, and Infantile Mortality rate in Stockton-on-Tees and in England & Wales, for the years 1900 to 1934 inclusive, are shown.

YEAR	STOCKTON-ON-TEES			ENGLAND & WALES		
	B.R.	D.R.	I.M.R.	B.R.	D.R.	I.M.R.
1900	34·7	20·0	172	28·7	18·3	154
1901	33·1	19·7	190	28·5	16·9	151
1902	32·7	17·2	142	28·5	16·3	133
1903	31·6	16·1	137	28·5	15·4	132
1904	31·3	17·5	149	28·0	16·2	145
1905	29·5	17·6	149	27·3	15·2	128
1906	32·9	15·9	128	27·2	15·4	132
1907	30·2	17·3	115	26·5	15·0	118
1908	31·1	17·5	150	26·7	14·7	120
1909	26·5	14·0	121	25·8	14·5	109
1910	26·8	15·2	126	25·1	13·5	105
1911	29·4	16·6	132	24·3	14·6	130
1912	30·6	15·6	91	23·9	13·4	95
1913	31·4	18·1	141	24·1	13·8	108
1914	30·5	17·7	121	23·8	14·0	105
1915	28·2	17·9	127	21·9	15·7	110
1916	23·7	16·5	107	20·9	14·3	91
1917	21·0	19·0	130	17·8	14·2	96
1918	23·0	21·3	104	17·7	17·3	97
1919	24·2	16·6	104	18·5	14·0	89
1920	33·3	15·6	108	25·5	12·4	80
1921	29·2	12·9	92	22·4	12·1	83
1922	25·8	15·4	103	20·4	12·8	77
1923	24·9	11·9	75	19·7	11·6	69
1924	23·3	14·5	111	18·8	12·2	75
1925	23·35	14·38	92	18·3	12·2	75
1926	22·39	13·34	90	17·8	11·6	70
1927	20·93	13·55	91	16·7	12·3	70
1928	21·13	12·85	69	16·7	11·7	65
1929	20·50	15·26	109	16·3	13·4	74
1930	23·25	12·49	65	16·3	11·4	60
1931	19·92	12·51	79	15·8	12·3	66
1932	19·83	12·76	77	15·3	12·0	65
1933	17·91	12·72	96	14·4	12·3	64
1934	19·23	12·15	62	14·8	11·8	59

			1934	1933
Deaths from Measles (all ages)	...	...	16	10
do. Whooping Cough (all ages)	...	...	—	5
do. Diarrhoea (under 2 years)	...	...	5	8

Notes on Death Returns for the year 1934. The total deaths occurring in 1934 amounted to 817. In the previous year the number was 852. This is a reduction of 35.

The following Table shows the six principal causes of death during the year, compared with the figures for the three previous years and with the average for the five-year period 1926-1930.

Disease		1934	1933	1932	1931	Average 1926-30
Heart Disease	..	163	147	171	158	129
Cancer	... ..	94	84	103	89	79
Pneumonia	...	72	80	62	99	115
Tuberculosis (all forms)		67	62	74	68	85
Cerebral Hæmorrhage		47	30	46	44	46
Congenital Debility		44	68	52	45	50
Totals		487	471	508	503	504

These six causes of death were responsible for 59·5% of the total deaths registered in the Borough during the year.

During 1933 there were 49 deaths attributable directly to Influenza. This number declined to nine in the year under review. Pulmonary Tuberculosis has remained stationary at 51 deaths for each year, but there has been an increase of nine deaths due to other forms of Tuberculosis.

Cancer continues its slow and steady increase. There were 94 deaths due to this scourge in 1934, as against 84 in the previous year. Cancer is a disease of late middle life and old age and the increase is, in part at least, due to the increasing average age of the

population. In a community consisting of only young people there would be little or no cancer but as the average age of a population becomes higher, more and more cancer is to be expected.

There has been a vast amount of research work done with the object of discovering the cause and the cure of this disease. Although no dramatic discoveries have yet been made, much has been discovered of value. Much yet remains to be done but it is not improbable that we are on the verge of discoveries which will give to mankind the key to the prevention of this terrible disease.

The group of allied conditions, cerebral hæmorrhage, heart disease, aneurysm, and other circulatory diseases accounted in 1934 for 266 deaths. In the previous year the figure 212. Our knowledge as to the actual causes of cerebral hæmorrhage is small and we can do little to prevent its occurrence, but we do know that many of the deaths from heart disease occurring in adolescents and young adults are rheumatic in origin. Prolonged treatment in hospital of early cases of rheumatism in children might prevent them developing heart disease which sooner or latter will prove fatal. We know that in Stockton-on-Tees there are approximately 150 children of school age who suffer from rheumatism. We know that a considerable proportion of them will develop, or are developing, incurable heart disease. We know that many of these children are surely doomed to an early death and it saddens one that there exists no facilities for their prolonged institutional treatment.

Measles was responsible for 16 deaths, compared with 10 during the previous year. It is not unreasonable to assume that the lives of some of these 16 individuals might have been saved had hospital accommodation been available for them. The pressure on the accommodation at the Isolation Hospital which continued during the year rendered it impossible to set aside a ward for the treatment of measles. This is regretted. Measles is a disease which leaves behind it, in cases which nominally have recovered, a trail of ill health in the form of bronchial trouble and general weakness. Much of these sequelae can be avoided by hospital treatment and convalescence under good conditions.

SECTION B.—GENERAL PROVISION HEALTH SERVICES. FOR THE AREA.

A complete survey of the health services of the Borough was given in my annual report for the year 1930, and in order to minimise duplication only changes in those arrangements which have taken effect during the year are mentioned here.

There has been no change in the services provided in the area under the following heads.

General.

- (a) Laboratory facilities.
- (b) Ambulance facilities.
- (c) Nursing in the Home.
- (d) Clinics and Treatment Centres.
- (e) Hospitals.

Maternity and Child Welfare.

- (i) Midwifery and Maternity Services.
- (ii) Institutional provision for Mothers or Children.
- (iii) Health Visitors.
- (iv) Infant Life Protection (under Part I of the Children Act, 1908, as amended by the Children and Young Persons Act, 1932).
- (v) Orthopædic Treatment.

SECTION C.—SANITARY CIRCUMSTANCES OF THE AREA.

Water. The Borough is supplied with water by the Tees Valley Water Board. This supply has its source in upland gathering grounds near which it is impounded in extensive reservoirs constructed about 30 miles from Stockton in the valleys of the Lune and the Balder, tributaries of the river Tees. The supply is constant and abundant and the quality is good.

Rivers and Streams. The crude sewage of the Borough is discharged into the river Tees without treatment.

Drainage and Sewerage. Apart from the drainage and sewerage of Housing Estates no schemes of major importance have been undertaken or completed during the year.

Closet Accommodation. 23 privy middens were converted to the water carriage system during the year and six waste water closets were converted to more modern types. Only 29 privy middens

and 34 pan closets now remain in the Borough. These cannot be converted as there is no sewer within reasonable distance. Conversions are carried out as the sewerage system is extended consequent upon new housing schemes extending the built up areas.

Public Cleansing. There has been no extension during the year of the arrangements for public cleansing other than that necessitated by new houses. A weekly collection is made and the refuse is mainly disposed of by tipping, about 90% of the refuse being thus disposed of.

137 ashpans were substituted for fixed ashpits during the year.

SANITARY INSPECTION OF AREA.

Number and Nature of Inspections made by the Sanitary Inspectors during the year 1934.

Investigations made in respect to notifiable disease ...	707
Premises disinfected re infectious disease	731
do do re vermin	102
Number of re-visits where cases are isolated at home	5
Inspections following complaints	260
do under the Housing Acts	62
do under the Housing Acts for slum clearance	1134
do under the Public Health Acts	359
Inspections of Offensive Trades	62
do of Workshops and Workplaces	51
do of Factories	65
do of Bakehouses	84
do of Cowsheds	176
do of Diaries and Milkshops	128
do of Stables	32
do of Slaughter-houses	2068
do of Markets and Shops	1129
do of Common Lodging Houses	31
do of Ice Cream Shops	13
do of Fried Fish Shops	51
do in regard to outstanding Notices	1215
Miscellaneous Inspections	602
Visits to Small-pox Contacts	—
Samples taken for Analysis	44
Samples taken for Bacteriological Examination	51
Visits to Houses-Let-in Lodgings	180
Visits to Caravans	25

NOTICES.

				Housing			Public Health		
				Prel.	Stat.	Total	Prel.	Stat.	Total
Number of Notices served during									
1934	...	...	...	59	10	72	359	60	419
Number of Notices complied with									
during 1934	...	...	...	45	20	65	290	56	346

SUMMARY OF DEFECTS FOUND DURING THE YEAR
ON INSPECTION UNDER THE PUBLIC HEALTH ACTS.

							Number discovered
Defective floors	...	...	...	...	...	...	80
do walls	...	...	...	...	...	...	129
do roofs	...	...	...	...	...	...	131
do eaves gutters	...	...	...	...	...	...	100
do fallpipes	...	...	...	...	...	...	42
do yard pavements	...	...	...	...	...	...	58
do plasterwork	...	...	...	...	...	...	61
Miscellaneous minor defects	...	...	...	...	...	...	312
Insufficient water supply	..	...	...	...	...	...	7
Offensive accumulations	...	...	...	...	...	...	5
Nuisances from animals	...	...	...	...	...	...	—
Improper food stores	...	...	...	...	...	...	6
Insufficient water supply to water closets				...	...	...	4
Defective soil pipes	...	...	...	...	...	...	4
do flush pipes	...	...	...	...	...	...	4
do cisterns	...	...	...	...	...	...	13
do water closet pedestals	...	...	...	...	...	...	23
do privies	...	...	...	...	...	...	1
do ashpits	...	...	...	...	...	...	41
do pans	...	...	...	...	...	...	25
Defective or blocked drains	...	...	...	...	...	...	74
do sinks	...	...	...	...	...	...	3
do sink waste pipes	...	...	...	...	...	...	18
do cellar drainage	...	...	...	...	...	...	1

(1) Inspection of Factories, Workshops and Workplaces.

Including inspections made by Sanitary Inspectors or Inspectors of Nuisances.

Premises	Inspections	Number of		Occupiers
		Written	Notices	Prosecuted
(1)	(2)	(3)	(4)	
Factories (including Factory Laundries) ...	65	...	1	...
Workshops (including Workshop Laundries)	112	...	2	...
Workplaces (other than Outworkers' premises)	23	...	—	...
Totals	...	*200	...	3

(2) Defects found in Factories, Workshops and Workplaces.

Particulars	Number of Defects		
	Found	Remedied	Referred to H.M. Inspector
(1)	(2)	(3)	(4)
<i>Nuisances under the Public Health Acts:—</i>			
Want of cleanliness ...	11	11	—
Want of ventilation ...	2	2	—
Overcrowding ...	—	—	—
Want of drainage of floors ...	2	2	—
Other Nuisances ...	8	8	—
<i>Sanitary Accommodation—</i>			
Insufficient ..	4	4	—
Unsuitable or defective ...	6	5	—
Not separate for sexes ...	2	2	—

*Offences under the Factory
and Workshop Acts :—*

Illegal occupation of under-
ground bakehouse

Other offences

(Excluding offences relating
to outwork and offences
under the Sections men-
tioned in the Schedule to
the Ministry of Health
(Factories and Workshops
Transfer of Powers) Order,
1921).

Nil

Total	...	35	...	34	...	—
-------	-----	----	-----	----	-----	---

* Most of the Slaughter-houses and Offensive Trade Premises are either Factories or Workshops. Frequent visits are paid to these premises but the inspections are not included in this figure.

**SPECIAL CLASSES of PREMISES and OCCUPATIONS SUBJECT to
CONTROL by the LOCAL AUTHORITY.**

Slaughter-houses. There are 25 slaughter-houses in the Borough, 5 of which are modern structures. These premises are visited regularly and are kept in a satisfactory condition.

Offensive Trades. Offensive trades have been established with the permission of the local authority on 9 premises in the Borough. Regular visits are paid to these premises to see that the requirements of the bye-laws are observed. The trades carried on are as follows:

Tripe Boiling	...	...	4
Tripe Boiling and Gut Scraping			1
Gut Scraping	...	...	1
Fat Boiling	...	...	1
Hide and Skin Factors		...	2

Common Lodging Houses. There are now 3 common lodging houses in the Borough, providing accommodation for 121 single men. One common lodging house was included in a Clearance Area and has been vacated. Only one of the remaining lodging houses, providing accommodation for 36 men, is suitably equipped for use for the purpose. 48 beds for weekly lodgers are also

provided in a separate wing of this lodging house. Several other houses in the town are providing accommodation for weekly lodgers. This type of accommodation appears to be more in demand than the nightly accommodation. These houses cannot be classed as either common lodging houses or as houses-let-in-lodgings and are therefore not subject to control by bye-laws.

Houses-Let-in-Lodgings. These houses are kept under constant supervision by the Inspectors. In many cases the houses are kept in a very satisfactory condition, but in others, owing to the type of tenant, great difficulty is experienced in maintaining a satisfactory standard of cleanliness. The bye-laws for the control of these houses are inadequate.

Tents, Vans, Sheds, etc. Close observation is kept on caravans entering the town and strict observance of the bye-laws insisted upon.

Schools. Four school departments have had new sanitary conveniences installed during the year. All the schools in the Borough are now fitted with modern installations.

During the year 1,151 children were excluded from School on account of infectious disease. 438 of these were actual sufferers and 713 were contacts. No school or department was closed during the year on account of infectious disease.

SECTION D.—HOUSING.

Slum Clearance. Considerable progress was made during the year with the programme of slum clearance submitted to the Ministry of Health in September, 1933. In this programme the following areas were scheduled for clearance:—

Area	Number of		Number of new houses to be provided	Year during which clearance is to be effected
	Houses	Persons to be displaced		
No. 1 Riverside Area	338	1754	418	1934-5
No. 2 Shakespeare Street Area	73	327	76	1935-6
No. 3 John Street Area	96	412	105	1935-6
No. 4 Brunswick Street Area	132	546	142	1936-7
Totals	639	3039	741	—

It was found, however, that in practice some modification of the areas scheduled, was required. The Riverside Area was ultimately divided into four areas, as follows:—

North Riverside Area.

South Riverside Area.

Commercial Street Area.

Cleveland Row Area.

The John Street Area was divided into five smaller areas, named John Street Area No. 1, No. 2, No. 3, No. 4, No. 5.

The Brunswick Street Area was also divided into five areas, as follows:—

Albion Street Area.

Huntley's Yard Area.

Pump Yard Area.

William Street Area.

York Street Area.

Two areas, Thomas Street Area and Laing Street Area, were not included in the five-years programme but were subsequently added.

Public inquiries have been held by the Ministry of Health in respect to Clearance Orders for the following areas:—

	Date of Inquiry.	Area.	Houses.	Families.	Persons
1.	Apr. 17th, 1934	North Riverside	176	215	831
2.	„	South Riverside	99	121	532
3.	Nov. 20th, 1934	Commercial Street	60	79	332
4.	„	Cleveland Row	8	15	70
5.	„	Stokes Yard	7	7	25
6.	„	Cross Street	3	9	31
7.	„	Hodgson's Yard	7	7	27
8.	„	Clarence Court	8	8	38
9.	„	Unicorn Yard	3	2	6
10.	„	Castlegate	5	5	18
11.	„	Cottage Row	4	4	16

12.	Nov. 20th, 1934.	John Street No. 1	14	14	47
13.	„	„ No. 2	8	10	24
14.	„	„ No. 3	15	25	69
15.	„	„ No. 4	24	24	80
16.	„	„ No. 5	45	46	176
17.	„	Shakespeare Street	67	69	297
18.	Feb. 5th, 1935	Ropery Street	7	8	32
19.	„	Albion Street	14	15	54
20.	„	Pump Yard	5	5	12
21.	„	Huntley's Yard	12	12	40
22.	„	Thomas Street	15	16	49
23.	„	Laing Street	3	3	13
24.	Mar. 27th, 1935	William Street	53	57	220
25.	„	York Street	60	64	240
Totals			722	840	3279

In the North Riverside Area the Order was confirmed in regard to 77 houses, 52 houses being excluded from the Area as forming part of the Church Row Widening Scheme and 47 on undertakings by the owners to reconstruct their houses.

In the South Riverside Area the Order was confirmed in regard to 61 houses, 3 houses being excluded from the Area as forming part of the Church Row Scheme and 35 on undertakings by the owners to reconstruct their houses.

In respect to the other areas, confirmation was received with the following exceptions:—

Castlegate Area—One house excluded.

Laing Street Area—One house excluded.

Commercial Street Area—One 'other building' excluded.



William Street Area—One house excluded on the owner undertaking that the house would not be used for human habitation.

York Street Area—Two houses excluded, one on the owner's undertaking that the house would not be used for human habitation.

Under these schemes as confirmed a total of 580 houses are to be demolished and re-housing is required for 662 families.

Individual Unfit Houses. Another important modification of the five-years programme is that the majority of the houses shown as individual unfit houses are now being dealt with as small clearance areas. Where three or more houses can be grouped together to form an area, this has been done.

The number of these houses included in the five-years programme and the years during which it was proposed they should be demolished, were as follows:—

	1933	1934	1935	1936	1937	1938	Total
							
Number of houses proposed to be demolished	—	47	13	29	—		89

37 of the 47 houses proposed to be dealt with during the years 1934-5 were made up into small clearance areas as follows:—

Stokes Yard ...	...	...	7
Cross Street ...	...	...	3
Hodgson's Yard	...	...	7
Clarence Court	...	...	8
Unicorn Yard	...	...	3
Castlegate ...	...	...	5
Cottage Row	...	...	4
			<hr/>
			37
			<hr/>

Seven of the houses proposed to be dealt with during the years 1935-6 were made up into the Ropery Street Clearance Area, and nine of the houses proposed to be dealt with during the years 1936-37 were included in the William Street Clearance Area. 36 of the 89 houses scheduled in the five-years programme as individual unfit houses still remain to be dealt with. This list however, was not intended to be complete and it is probable that as inspection goes on it will be necessary to add a considerable number of houses. The problem of the best method of dealing with these houses is being carefully considered.

Improvement Area. One area containing 600 houses was scheduled in the five years' programme to be dealt with during the years 1935-38 as an Improvement Area. In view of the provisions of the new Housing Bill consideration of the matter has been deferred for the time being.

Re-housing. The standard of re-housing accommodation laid down in Section 37 of the Housing Act 1930, namely, the provision of two-bedroomed houses for four persons, three-bedroomed houses for five persons, and four-bedroomed houses for seven persons, was not considered adequate by the Council and the following standard of accommodation for re-housing has been approved.

One-bedroomed houses for one person families and for two person families where one bedroom would be sufficient (i.e. mother and daughter, father and son, elderly married couples, etc.)

Two-bedroomed houses for all three-person families.

Three-bedroomed houses for all four, five and six-person families.

Four-bedroomed houses for all families of seven or over.

The number of houses, according to the above standard, required to re-house the persons to be displaced from the various areas is as follows :—

		No. of Bedrooms.				Total.
		1	2	3	4	
Areas Nos. 1 & 2	...	16	58	69	21	164
Areas Nos. 3 to 17	...	69	90	127	37	323
Areas Nos. 18 to 23	...	10	22	24	2	58
Areas Nos. 24 & 25	...	21	35	51	10	117
Totals		116	205	271	70	662

A contract has been placed for 336 houses on the Eastbourne Estate and this is now well in hand. Additional land on which to erect the remainder of the houses required has been purchased at Norton.

Reconditioning of Houses under Section 17 of the Housing Act. 1930.

Owing to the time taken up with slum clearance work during the year it was not possible to proceed with work under Section 17 to any considerable extent. Now that confirmation of Clearance Orders in respect to the worst of the slum property in the Borough has been received it is proposed to proceed with the systematic inspection of a considerable number of houses which fall definitely below a reasonable standard of fitness.

New houses. 489 new houses were erected in the Borough during the year 1934. No houses were erected during the year by the Local Authority.

HOUSING STATISTICS FOR THE YEAR 1934.

1. Inspection of Dwelling-houses during the year :--

- | | | |
|---|--------|-----|
| (1) (a) Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts) | ... | 421 |
| (b) Number of inspections made for the purpose | .. | 421 |
| (2) (a) Number of dwelling-houses (included under sub-head (1) above) which were inspected and recorded under the Housing Consolidated Regulations, 1925 | | |
|  | .... | 59 |
| (b) Number of inspections made for the purpose | ... | 62 |
| (3) Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation | | |
| | | — |
| (4) Number of dwelling-houses (exclusive of those referred to under the preceding sub-head) found not to be in all respects reasonably fit for human habitation | | |
|  | ... .. | 59 |

2. Remedy of Defects during the year without service of Formal Notices.

Number of defective dwelling-houses rendered fit in consequence of informal action by the Local Authority or their Officers	335
---	--------	-----

HOUSING STATISTICS—continued.

3. Action under Statutory Powers during the year.

A. Proceedings under Section 17, 18 & 23 of the Housing Act, 1930.

(1) Number of dwelling-houses in respect of which notices were served requiring repairs	...	...	10
(2) Number of dwelling-houses which were rendered fit after service of formal notices :—			
(a) by owners	...	...	20
(b) by Local Authority in default of owners	...		—

B. Proceedings under the Public Health Acts.

(1) Number of dwelling-houses in respect of which notices were served requiring defects to be remedied		60
(2) Number of dwelling-houses in which defects were remedied after service of formal notices :—		
(a) by owners	...	56
(b) by Local Authority in default of owners	...	—

C. Proceedings under Sections 19 and 21 of the Housing Act, 1930.

(1) Number of dwelling-houses in respect of which Demolition Orders were made	...	...	—
(2) Number of dwelling-houses demolished in pursuance of Demolition Orders	...	...	—

D. Proceedings under Section 20 of the Housing Act, 1930.

(1) Number of separate tenements or underground rooms in respect of which Closing Orders were made	...	—
(2) Number of separate tenements or underground rooms in respect of which Closing Orders were determined, the tenement or room having been rendered fit	...	—

SECTION E.—INSPECTION AND SUPERVISION OF FOOD.

Milk Supply. There were 110 names on the register of retail purveyors of milk at the end of 1934. This number is made up as follows:—

Milkshops and Dairies	...	...	80
Dairies in connection with cowsheds			11
Persons who retail milk in the			
Borough from outside dairies	...		19

The milkshops are visited regularly and are kept in a satisfactory condition.

There are 26 registered cow-keepers in the Borough, the number of cows on these farms being approximately 450. One farm is registered by the Durham County Council for the production of Grade A milk.

The farm premises are on the whole of up-to-date construction and are kept in a cleanly condition. During the year the following works were carried out at farms:—

White House Farm—	New dairy erected.
Elm Tree Farm—	New dairy erected.
Glebe Farm—	New byre erected.
Hartburn Farm	New dairy erected and cooler installed.

Regularly visits of inspection are paid to the farms and samples of milk are taken and sent for bacteriological examination.

The inspection of the cows on the registered farms in the Borough is made twice yearly by the Durham County Council Veterinary Officer under the Milk and Dairies Order and the following is a copy of his annual report:—

“No. of visits to cowkeepers	...	57.
No. of cows examined	...	1116.
General condition and type of cows—	Fairly good.	Mostly
	Cross Shorthorn, a few Fresion and Guernsey.	
General cleanliness of cows.	Good.	

General condition of sanitation. Good.

Chief methods of milk disposal. Wholesale and retail.

Number of animals slaughtered under Tuberculosis Order:—

(a) Tuberculosis of the udder or giving T.B. milk	1
(b) Other forms of Tuberculosis	3
Total	4

Number of cases of diseases other than Tuberculosis ... 13

GENERAL OBSERVATIONS.

Two inspections were made in this district during the year and in most cases both cows and cowsheds were clean on inspection. The cows themselves were of a useful dairy type and in fairly good general condition. Four cases were reported as coming within the scope of the Tuberculosis Order and these were all slaughtered by the Local Authority."

(Sgd.) E. R. CALLENDER,

26th January, 1935.

Veterinary Officer.

Bacteriological Examination of Milk. Fifty-one samples of milk were taken during the year and sent for bacteriological examination. Seven of these were samples of "Pasteurised" milk which is dealt with in a later paragraph of the report. The remaining 44 samples were all taken from cowkeepers in the Borough. The results of the examination of samples have been very satisfactory:—

In 6 samples the total bacterial count was less than 10,000
„ 22 „ „ „ „ between 10,000 & 50,000
„ 10 „ „ „ „ „ 50,000 & 200,000
„ 1 „ „ „ „ „ 200,000 & 500,000
„ 4 „ „ „ „ „ over 500,000 per c.c.

In 29 samples bacillus coli was entirely absent; in 7 samples the organism was present in 1 c.c.; 5 samples gave a positive result in 0.1 c.c.; and 3 in 0.01 c.c.

Cowkeepers take an intelligent interest in the results of these bacteriological examinations and make every effort to maintain a high standard of cleanliness.

Tuberculosis in Milk. Each of the above samples was examined for the presence of tubercle bacilli but in only one case was a positive result returned. The cows on the affected farm were examined by the Borough Veterinary Inspector but he failed to isolate the affected animal. Further samples of milk were taken from small groups of cows and sent for bacteriological examination and although no animal had been disposed of in the meantime a negative result was obtained in each case.

The Milk (Special Designations) Order, 1923. Five licences, four dealers licences to sell milk as "Certified" and one pasteuriser's licence to sell milk as "Pasteurised," were granted during the year 1934.

During the early part of the year the pasteuriser's licence was suspended pending the installation of an entirely new pasteurising plant. This plant was brought into operation in October, 1934, and the suspension of the licence was withdrawn. Between October and the end of the year seven samples of the milk were taken and sent for bacteriological examination. The total bacterial count in each case was as follows:—23,000; 9,200; 5,600; 1,700; 10,500; 4,700; and 7,100 per c.c. In no case was bacillus coli present.

Tuberculosis Order, 1925. During the year 1934, nine cows on seven premises were reported as suspected to be suffering from tuberculosis. On veterinary examination one was certified not to be suffering from tuberculosis and eight were ordered to be slaughtered. The post-mortem results showed one to be affected with mastitis (which must have been tubercular as the animal had been giving tubercular milk); one with tuberculosis emaciation; four with other forms of tuberculosis and one with Johne's Disease. Three of the cases of tuberculosis were advanced and four not advanced.

The figures for the year compared with those for the two preceding years are as follows:—

	1934	1933	1932
Cases reported ...	9	11	16
Number of animals slaughtered	8	11	16
Post-mortem results—			
Tuberculosis of the udder	2	4	9
„ advanced ...	3	5	3
„ not advanced	2	2	4
Not tuberculosis ...	1	—	—

Meat Inspection. 2,068 visits were paid to slaughter-houses during the year in connection with the inspection of meat under the Public Health (Meat) Regulations, 1924, and 26,539 carcasses were examined.

The following Tables show the work done under the Regulations during the year and the meat condemned as unfit for food.

Table showing the number of animals killed and inspected and the percentage inspected during the year 1934.

Animals		Number Killed	Number Inspected	Percentage Inspected
Cattle	...	4166	3219	77
Sheep	...	14429	9073	63
Pigs	...	7613	5485	72
Calves	...	331	128	79
Total		26539	17905	67

Table showing the Meat condemned by Inspectors during the year, the total number of animals involved and the percentage to the total number of animals killed.

Animals		Carcase and Organs	Part Carcase	Organs	Number of Animals Involved	Percentage to Total Number Killed
Cattle	...	8	10	144	97	2·12
Sheep	...	—	—	—	—	—
Pigs	...	4	88	37	112	1·47
Calves	...	1	—	4	3	0·90
Total	...	13	98	185	212	0·79

Table showing the Meat condemned **for Tuberculosis**, the number of animals involved and the percentage to the total number of animals killed.

Animals		Carcase and Organs	Part Carcase	Organs	Number of Animals Involved	Per- centage to Total Number Killed
Cattle	...	7	10	126	79	1.89
Sheep	...	—	—	—	—	—
Pigs	...	3	88	21	96	1.26
Calves	...	—	—	4	2	0.60
Total	...	10	98	151	177	0.66

Slaughter of Animals Act, 1933. The provisions of this Act were observed during the year. 85 licences were granted to slaughtermen for the year 1934.

Inspection of Shops, Stalls and Places where food is prepared. Regular inspections are made of the foods exposed for sale on the stalls in the markets and periodical visits are paid to all premises where foodstuffs are manufactured, prepared, stored or deposited for the purpose of sale. All the premises were kept in a satisfactory condition. One Inspector is on duty in the market on each market day.

The number of visits paid to these premises during the year is shown below :—

Markets and Shops	...	...	1129
Slaughter-houses	...	...	2068
Offensive Trades	...	...	62
Fried Fish Shops	...	...	51
Bakehouses	...	...	84
Dairies and Milkshops	...	...	128
Ice Cream Shops	...	...	13
			<hr/> 3535 <hr/>

Other Foods. During the year the undermentioned foodstuffs were submitted for examination, were condemned as unfit for food and were destroyed:—

3 boats Tomatoes.
6 casks Pears.
80 stalks Bananas.
66 Rabbits.
20 Ducks.
60 lbs. Chilled Beef.
11 cans Meat.

Action taken under the Food and Drugs (Adulteration) Act, 1928.

During the year 1934, 44 samples were taken under the provisions of the above Act and submitted to the Public Analyst for analysis. This number was made up as follows:—

Milk	...	...	...	36
Pressed Beef	...	...	...	1
Potted Meat	...	...	...	1
Sauce	...	...	...	1
Sausage	...	...	...	1
Pepper	...	...	...	1
Bloater Paste	...	...	...	1
Chicken and Ham Paste	...	...	...	1
Jam	...	...	...	1
				—
				44
				—

In only one case during the year was definite adulteration certified. This was a sample of milk taken from a retailer in the Borough. The result of the examination of this sample showed that it was deficient in both non-fatty solids and fat, the deficiency in non-fatty solids being equal to the addition of 11·80% of water. As the sample was taken almost immediately after it had been delivered to the retailer it was obvious that he was not at fault and no action was taken in respect to this sample. Further samples taken from the wholesaler proved to be of genuine quality. Four other samples of milk were certified to be slightly below standard in fat. All the samples other than milk were certified to be of genuine quality.

Chemical and Bacteriological Examination of Food. The chemical analysis of samples is carried out by the Public Analyst for the County of Durham, at Darlington, while the bacteriological Examination of samples is carried out at the Public Health Laboratory of the University of Durham College of Medicine at Newcastle-on-Tyne.

SECTION F.—PREVALENCE OF, AND CONTROL OVER, INFECTIOUS AND OTHER DISEASES.

Scarlet Fever. Scarlet Fever is caused by a germ (the haemolytic streptococcus) which infects, particularly, the throat. At times infection by this organism is widespread and the number of persons so infected is very much larger than the actual clinical cases of scarlet fever occurring. The presence of this organism in the throat may give rise to actual scarlet fever but it may also give rise to other conditions. It may (1) produce no symptoms and the individual then acts for some time as a carrier of the infection and he may give rise to actual cases of scarlet fever in those with whom he comes in contact provided that they are susceptible to the disease, (2) produce Tonsillitis of varying degrees of severity, (3) produce a mild febrile condition without rash, or (4) produce actual scarlet fever.

Each of these conditions may give rise to scarlet fever in others and in the case of Nos. 2, 3, and 4, the patients themselves may suffer from the complications which are associated with true clinical scarlet fever, such as acute ear trouble, rheumatism and heart mischief.

The unfortunate experience of a Stockton family during the Autumn of 1934 well illustrates this variation in the type of troubles caused by the scarlet fever streptococcus. The father of a family developed a severe sore throat. A few days later a small daughter was diagnosed as scarlet fever and was removed to the isolation hospital. Subsequent to her removal the mother and another child became ill with sore throats. The child in hospital made a good

recovery without any complications but the mother and the other child both suffered from acute ear trouble which necessitated urgent operations for acute mastoid infection. Neither the father, mother, or the child which remained at home developed a rash.

It will be realised that the isolation of cases of scarlet fever can not entirely prevent the spread of the disease though it can, and does, lessen it. From the point of view of clinical medicine a case cannot be notified as scarlet fever unless a rash is or has been present, but epidemiologically those cases of streptococcal sore throats which are prevalent during epidemics of scarlet fever are a greater menace than are isolated cases of the disease itself.

The carrier of the disease, that is one who harbours the organism, and can convey it to others, without any signs of illness is, of course, a serious menace.

Infection by the haemolytic streptococcus is periodically widespread and the number of possible sources of infection, i.e. those who carry the organism and those with scarlet fever throats but without a rash, is much greater than the number of clinically definite cases of true scarlet fever.

Control of the spread of scarlet fever depends more upon the efforts of the populace as a whole than upon official action. The avoidance of overcrowding in houses, and adequate ventilation are important aids towards controlling the spread of the disease.

From the above statements it will be clear why it is often impossible to trace the source of infection of any particular case of scarlet fever and why official action by the Local Authority is only partially successful in arresting an epidemic.

It must not, however, be assumed that the removal of cases of the disease to an isolation hospital is unnecessary. The benefits of isolation are two-fold. There is the benefit to the community of the removal from its midst of a source of infection and the benefits to the patient of skilled nursing and medical care by a staff experienced in the treatment of the disease.

The production of artificial immunity against scarlet fever is as yet too labourious and uncertain to be recommended generally as a measure for preventing the occurrence of epidemics of the disease.

The epidemic of scarlet fever during the latter half of 1933 continued during the year 1934, the number of cases notified being 658, compared with 485 during the previous year. On several occasions the Isolation Hospital has been occupied to full capacity and a number of cases had to be treated at home for a time until accommodation was available. The average duration of stay of uncomplicated cases in hospital was one month. Statistics in respect to complications, etc., are given in the section of the report dealing with the working of the Isolation Hospital. Six deaths occurred from this disease during the year.

Diphtheria. The number of cases of Diphtheria notified was again low, although the disease reached epidemic proportions in the areas of several Local Authorities not far distant. The number of cases notified was 36, compared with 24 for the previous year. There were two deaths from the disease. No action was taken during the year to provide artificial immunisation against diphtheria.

Pneumonia, etc. 130 cases of Pneumonia were notified during the year, compared with 117 for the previous year. 40 of these cases were notified during the last two months of the year. The number of deaths from the disease was slightly lower, the figures for 1934 and 1933 being 72 and 75 respectively. Only nine deaths were registered during the year from Influenza, a considerable reduction on the figure for the previous year when 48 deaths occurred from the disease.

Cases of non-notifiable infectious diseases such as measles, whooping cough, chicken-pox, mumps, etc., are received from Head Teachers and School Attendance Officers, and the cases are investigated by the School Nurses.

Cases of measles, whooping cough, epidemic diarrhoea, ophthalmia neonatorum, puerperal fever and pneumonia, are visited by a nurse from the District Nursing Association, under agreement with the Corporation, and if necessary, nursing assistance is provided.

Disinfection. All bedding, clothing, etc., from infected houses is removed to the Isolation Hospital for disinfection by superheated steam. Infected premises are disinfected with a formalin spray. During the year 731 premises were disinfected. Disinfectants are provided free for home use.

In addition to the above 102 houses which had become infested with vermin were disinfected with a special fluid.

Bacteriological Examinations. The following specimens were sent by medical practitioners in the Borough for bacteriological examination during the year 1934.

Disease Suspected	No. of Specimens Submitted	Number Positive	Number Negative
Diphtheria	... 44	3	41
Tuberculosis	... 132	27	105
Totals	... 176	30	146

The following specimens were submitted from patients in the Isolation Hospital for bacteriological examination during the year.

Diphtheria (Throat)	Negative	186	
	Positive	169	Total 335
„ (Nasal)	Negative	4	
	Positive	3	„ 7
„ (Virulence Tests)	Negative	1	
	Positive	2	„ 3
Vaginal Smear (Gonorrhœa)	Negative	...	1
Tuberculosis	Negative	...	1
Enteric Fever (Blood Test)	Positive	...	1
„ „ (Faeces)	Negative	16	
	Positive	11	Total 27
„ „ (Urine Test)	Negative	5	
	Positive	—	„ 5

NOTIFIABLE DISEASES DURING THE YEAR 1934.

DISEASE	AGE PERIODS													Cases Admitted to Hospital	DEATHS												
	Un- der 1 year	1 to 2	2 to 3	3 to 4	4 to 5	5 to 10	10 to 15	15 to 20	20 to 35	35 to 45	45 to 65	65 and over	Un- der 1 year		1 to 2	2 to 3	3 to 4	4 to 5	5 to 10	10 to 15	15 to 20	20 to 35	35 to 45	45 to 65	65 and over	Total	
		1 to 2	2 to 3	3 to 4	4 to 5	5 to 10	10 to 15	15 to 20	20 to 35	35 to 45	45 to 65	65 and over			1 to 2	2 to 3	3 to 4	4 to 5	5 to 10	10 to 15	15 to 20	20 to 35	35 to 45	45 to 65	65 and over		
SMALL-POX	
SCARLET FEVER	3	10	42	62	290	126	25	41	9	3	...	627	3	1	1	1	6	
DIPHTHERIA	2	2	5	10	6	1	7	...	1	...	36	...	1	...	...	...	...	...	...	...	...	...	2		
ENTERIC FEVER (including Paratyphoid)	1	1	1	...	...	...	3	...	...	...	...	...	...	...	...	...	...	...	1		
PUERPERAL FEVER	3	5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1		
PUERPERAL PYREXIA	5	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
PNEUMONIA	5	6	10	7	28	4	12	23	7	16	6	4	2	...	2	1	1	1	7	8	23	13	71	
CREBBRO SPINAL FEVER	1	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	1	
ERYSIPELAS	1	1	...	...	3	2	3	10	9	18	3	1	...	...	...	...	...	...	...	...	...	...	...	1	
TOTALS	10	19	54	59	71	139	42	90	34	38	9	668	12	5	3	3	1	3	1	2	9	8	23	13	83	

ISOLATION HOSPITALS.

During the year 1934, 670 patients from the Borough were admitted to the Isolation Hospital, compared with 592, the number for the year 1933. In addition 328 cases were admitted from the areas of the Stockton Rural District Council and the Billingham Urban District Council with whom the Corporation has agreements. It was not possible, owing to the continued prevalence of scarlet fever, to set apart a portion of the accommodation, as has been done since the hospital was extended, for cases other than primary acute infectious diseases, the whole of the accommodation being required for cases of scarlet fever and diphtheria.

No case of smallpox occurred during the year and the smallpox hospital has therefore not been opened.

The following table shows the number of admissions to the Isolation Hospital from the different districts catered for during the year 1933.

Disease			Total	Borough of Stockton	Urban District of Billingham	Rural District of Stockton
Scarlet Fever	...	...	889	627	188	74
Diphtheria	...	...	102	36	62	4
Enteric Fevers	...	...	3	3	—	—
Measles	...	...	1	1	—	—
Cerebo-spinal Meningitis	...	...	1	1	—	—
Erysipelas	...	...	1	1	—	—
Ophthalmia Neonatorum	...	...	1	1	—	—
Totals	...	...	998	670	250	78

Further information with regard to the Isolation Hospital is given below :—

Disease	No of Cases remaining Dec. 31st, 1933	No. of Cases admitted 1934	No. of Cases under Treatment 1934	No. of Cases Discharged	No. of Deaths	Per-centage Mortality	No. of Cases remaining Dec. 31st, 1934
Scarlet Fever	101	889 (875)	990	877	7 (6)	0·61	106
Diphtheria	2	102 (79)	104	81	6 (5)	6·32	17
Enteric Fever	—	3	3	2	1	33	—
Measles	—	1	1	—	1	—	—
Cerebro-Spinal Meningitis	—	1	1	—	1	—	—
Erysipelas	—	1	1	1	—	—	—
Ophthalmia Neonatorum	—	1	1	1	—	—	—
Totals	103	998	1101	962	16	1·4	123

The figures in brackets denote the number of actual cases only, and the mortality rates are worked on these figures.

Daily number of Patients in Hospital.

Scarlet Fever—Maximum	...	106	(Dec. 31st.)
Minimum	...	52	(Sep. 2nd.)
Average	...	80·5	
Diphtheria —Maximum	...	31	(Nov. 1st. & 5th.)
Minimum	...	1	(May 23rd. & 25th.)
Average	...	9·4	
All Patients —Maximum	...	127	(Oct. 7th & Dec. 31st.)
Minimum	...	55	(Sep. 4th.)
Average	...	90·38	

Notes on Scarlet Fever Cases. In 14 cases admitted to hospital as Scarlet Fever, the diagnosis was revised as follows :—

Pyrexia (with no apparent cause)	1
Erythema	11
Urticaria	2

The maximum number of days spent in hospital was 110.

The minimum do. do. 10.

The average do. do. 33·5.

Complications. The complications noted on admission were as follows :—

Otorrhœa (single 9, double 3)	...	12 (1·37%)
Adenitis (single 20, double 37)	...	57 (6·51%)
Heart Complications (M.S.M.5., Irregular action 1)	... ..	6 (0·68%)
Rhinitis	... ..	23 (2·64%)
Nephritis	.. ...	1 (0·1 %)
Lobar Pneumonia	... ..	1 (0·1 %)
Impetigo	... ..	4 (0·46%)
Vaginitis	... ..	1 (0·1 %)

The following complications occurred after admission :—

Rhinitis	... ..	119 (13·6 %)
Tonsillitis	... ..	56 (6·41%)
Adenitis (single 87, double 39)	...	126 (14·51%)
Otorrhœa (single 35, double 16)	...	51 (5·82%)
Nephritis	... ..	24 (2·72%)
Rheumatism	... ..	52 (5·84%)
Mastoiditis (operation) (single 4, double 1)	... ..	5 (0·57%)
Suppurating Adenitis (incised) (single 8, double 1)	... ..	9 (1·02%)
Heart Complications :—		
Pericarditis	... 1	
Bradycardia	... 1	
Dilatation	... 10 (1·12%)	
Irregular action	28 (3·3 %)	
Mitral systolic murmur	18 (2·05%)	60 (6·84%)

(Complications percentages are based on actual cases discharged.)

Other complications were as follows :—

Jaundice	... ..	1
Sinusitis	... ..	2
Vaginitis	... ..	3
Abscess Incised	... ..	1
Conjunctivitis	... ..	1
Dacryocystitis	... ..	1
Diarrhoea	... ..	2
Diarrhoea (? Dysentery)	... ..	5

Eight patients contracted varicella on the 38th, 9th, 6th, 72nd, 42nd, 15th, 28th and 28th days respectively.

One patient developed measles shortly after admission.

Six patients had scarlet fever rashes on the 20th, 17th, 25th, 14th, 8th, and 9th days respectively.

One case was in hospital 28 days. Indefinite desquamation. Had a definite attack of scarlet fever two days after discharge and returned to hospital.

One case had a definite attack of scarlet fever and returned to hospital one month after discharge with second definite attack. Desquamated both times.

One case had definite severe attack of scarlet fever and returned to hospital six months later with second definite attack.

Thirty patients were given scarletina serum. Total quantity 560 c.c. Average dose 18.6 c.c. Four patients had anaphylactic symptoms after serum.

The fatal cases were in hospital 28, 18, 27, 5, 13, 15 and 21 days. One was apparently a mild and uncomplicated case but had an attack of vomiting and dyspnoea and died suddenly. Another had double mastoidectomy performed with extra-dural abscess and lateral sinus infection, and a third case was admitted as scarlet fever but this was revised to disseminated sclerosis. Four were septic cases, two of which were admitted in December, 1933.

There were 39 return cases or 4.45% of the actual cases discharged.

Notes on Diphtheria Cases. In 25 cases admitted to hospital as Diphtheria, the diagnosis was revised as follows :—

Tonsillitis	...	...	17
Scarlet Fever	...	...	6
Retropharyngeal abscess	...	...	1
Chronic Bronchitis	...	...	1

Five cases had both Diphtheria and Scarlet Fever.

The maximum number of days spent in hospital was 122

The minimum do. do. 27

The average do. do. 45·5

Complications. The complications noted on admission were as follows :—

Adenitis (single 4, double 3) 7

Rhinitis 1

Cardiac irregularity ... 1

The following complications occurred after admission :—

Adenitis 2

Rhinitis 1

Otorrhoea 2

Cardiac irregularity ... 8

Albuminuria 2

Palatal paralysis ... 2

Tonsillitis 2

Bradycardia 3

The fatal cases were admitted on the 10th, 2nd, 8th, 2nd, 3rd and 7th day of the disease respectively and were in hospital 6, 12, 3, 47, 1 and 3 days respectively. One fatal case was admitted as Diphtheria but this was revised to Chronic Bronchitis. This case was in hospital only one day.

Anti-diphtheria serum was given to 89 patients. Total 904,000 units. Maximum dose 32,000 units. Average dose 10,156 units.

Notes on Enteric Fever Cases. The two recoveries were in hospital 44 and 51 days respectively. The fatal case was in hospital nine days.

CANCER.

94 deaths were registered as being due to this disease during the year 1934, an increase of 10 on last year's figure. The death-rates from the disease for the five-year period 1926-30, and for the years 1931 to 1934, are as follows:—

1926-1930 (average)	...	1·16	per 1000 of population
1931	...	1·30	do.
1932	...	1·52	do.
1933	...	1·22	do.
1934	...	1·39	do.

In the following table the deaths from the disease are shown according to the sex and age period and according to the site affected.

Site	MALES						FEMALES						Total Deaths
	25 — 35	35 — 45	45 — 55	55 — 65	65 and over	Total	25 — 35	35 — 45	45 — 55	55 — 65	65 and over	Total	
Buccal Cavity and Pharynx	—	—	1	3	2	6	—	—	—	—	—	—	6
Digest. Organs & Peritoneum	1	2	4	14	9	30	—	1	3	8	10	22	52
Respiratory Organs	—	—	3	—	3	6	—	—	—	—	—	—	6
Uterus	—	—	—	—	—	—	3	—	5	5	3	16	16
Other Female Genital Organs	—	—	—	—	—	—	—	—	—	—	1	1	1
Breast	—	—	—	—	—	—	—	1	1	2	3	7	7
Male genito-urinary organs	—	—	—	1	1	2	—	—	—	—	—	—	2
Other Sites	—	—	—	1	—	1	—	—	—	—	—	—	1
Totals	1	2	8	19	15	45	3	2	9	15	17	46	91*

* The Registrar General's figure is 94—46 males and 48 females.

35% of the total female cancer deaths were due to cancer of the uterus, an increase of 7% on last year's figure.

Owing to pressure of work in the Department it has not been possible to undertake investigations into cases of cancer as suggested in Circular 1136 which was issued in 1930.

PREVENTION OF BLINDNESS.

No action was taken during the year under Section 66 of the Public Health Act, 1925, for the prevention of blindness or for the treatment of persons suffering from any disease or injury of the eyes.

TUBERCULOSIS.

The following table shows the number of new cases notified or coming to the notice of the Medical Officer of Health and the number of deaths from the disease during the year 1934.

Age Periods	New Cases.							Deaths.						
	Pulmonary			Non- Pulmonary			Total New Cases	Pulmonary			Non- Pulmonary			Total D'ths
	M	F	Tot.	M	F	Tot.		M	F	Tot.	M	F	Tot.	
0-1	—	—	—	—	—	—	—	—	—	—	1	—	1	1
1-5	—	—	—	3	4	7	7	—	—	—	—	4	4	4
5-10	2	1	3	2	5	7	10	1	—	1	2	1	3	4
10-15	—	3	3	4	2	6	9	—	2	2	1	1	2	4
15-20	—	4	4	—	2	2	6	3	2	5	—	—	—	5
20-25	4	6	10	1	1	2	12	3	5	8	—	—	—	8
25-35	7	5	12	—	1	1	13	7	7	14	—	1	1	15
35-45	2	7	9	1	5	6	15	4	4	8	—	1	1	9
45-55	4	2	6	—	1	1	7	8	2	10	—	2	2	12
55-65	3	1	4	—	—	—	4	4	1	5	—	1	1	6
65 & over	1	—	1	—	1	1	2	—	—	—	—	—	—	—
Totals	23	29	52	11	22	33	85	30	23	53	4	11	15	68*

* The number of deaths shown on the Registrar General's Return is 67—
Pulmonary 51; Non-pulmonary 16.

There was a considerable reduction in the number of cases of pulmonary tuberculosis notified during the year, the figure for 1934 being 52, compared with 73 in 1933, 64 in 1932, 82 in 1931

and 73 in 1930. On the other hand the number of cases of non-pulmonary tuberculosis shows an increase, the figures for the past five years being as follows—1934—33; 1933—24; 1932—34; 1931—55; and 1930—38.

The deaths from pulmonary tuberculosis show a slight reduction, from 55 in 1933 to 51 in 1934, while the deaths from the non-pulmonary forms of the disease increased from 7 to 16, but this figure is still below the average for the three years 1930-32, which was 20.

The average death-rates from pulmonary and non-pulmonary tuberculosis and the average death-rate from all forms of the disease for the five year period 1926-1930, and the corresponding rates for the years 1931-34, are shown in the following Table:—

Tuberculosis Death-rates.

Year	Pulmonary	Non-pulmonary	All Forms
1926-30 (average)	0·88	0·36	1·24
1931	0·70	0·29	0·99
1932	0·80	0·29	1·09
1933	0·82	0·10	0·92
1934	0·75	0·23	0·98

The ratio of non-notified tuberculosis deaths, i.e., cases not notified before death, to the total deaths from the disease was 1 to 8·4.

It was not necessary to take action during the year under the Public Health (Prevention of Tuberculosis) Regulations, 1925, or the Public Health Act, 1925, Section 62.

OPHTHALMIA NEONATORUM.

Twelve cases of this disease were notified during the year. The result of treatment of these cases is shown in the following Table:—

Number of cases notified.	Cases Treated at Home.	Treated in Hospital.	Vision un-impaired.	Vision impaired.	Total Blindness.	Deaths
12	10	2	12	—	—	—

All the cases treated at home were kept under supervision by nurses from the District Nursing Association until the condition had cleared up.

SECTION G.—MATERNITY AND CHILD WELFARE.

General Considerations. The Maternity and Child Welfare services provided by the Town Council continue to enjoy the confidence of the local population.

During 1934 the demands upon the accommodation at the Robson Maternity Home were greater than could be met and some applicants for admission had to be refused. The births which took place in the Home amounted to 25% of the total births in the town.

The number of expectant mothers who obtained ante-natal supervision at the Oxford Terrace Centre, the Bowesfield Lane Centre and the Robson Maternity Home (booked cases), amounted to 47% of the total births.

The attendances at the various Child Welfare Centres totalled 26,071. Of the 1293 children born alive in the town, 62% attended one or other of the Child Welfare Centres.

One of the most gratifying features of the past eleven years work in the Child Welfare Centres in the town has been the gradual disappearance of severe rickets. Some years ago I had photographs taken which illustrated the severe deformities of the legs caused by rickets. It would not be possible to take such photographs to-day for severe cases of rickets are practically non-existent, whilst cases of minor rickets are becoming fewer and fewer.

A further change which is taking place is the diminution of anæmia in very young children. This change is due to methods of feeding which have been introduced at the Centres during the past three or four years.

The experience gathered during years of maternity and child welfare work enables a general review of the position of the care of child bearing women and children to be made.

It is a simple matter to state the basic problem which the maternity and child welfare service is endeavouring to solve. The problem is to ensure that child bearing shall be, to the mothers, a safe and natural function and that the children brought into the world shall be healthy and maintained healthy until, at the age of five years, they are handed over to the care of the School Medical Service.

The various factors which interfere with the effective solution of the problem are inter-related and can not be separated.

Much public attention has recently been directed to certain aspects of the problem. There has been, rightly, an outcry against the incidence of maternal mortality, but it is not generally understood that maternal mortality is dependent upon numerous factors and influences of which the lack of the provision of midwife and medical attention at birth is only part.

Birth Rate. There has been occurring for some years a steady fall in the birth rate. The causes of this fall are imperfectly understood. The decline in the birth rate is not due to any one cause but to the sum of several causes.

One cause is the tendency to higher age at marriage. The most fertile years of a women's life are from about 18 years of age to the middle twenties. Late marriage has a definite effect upon the number of potential children. Late marriage is largely due to economic pressure.

A second factor in reducing the number of children born may be the voluntary limitation of the size of the family. How far this factor is operative can not be stated but it is probably overestimated. In so far as it is operative the motives initiating it are probably largely economic.

(The average size of family in Stockton-on-Tees was in 1921 4.53 persons. In 1931 this figure had decreased to 4.06 persons).

Investigations which I have undertaken seem to show that there is some correlation between the death rate of a community and the birth rate. These investigations are being pursued, but are not yet sufficiently advanced to enable definite conclusions to be formulated. It may however, not be inappropriate to state here that there does seem to be some biological tendency which causes a high death rate to be followed, within a period of about a year, by an increased birth rate. The converse also appears to take place.

Mammalian birth rate is dependent upon fertility rate. The latter is, in part at least, dependent upon factors contained in the diet of the individual.

A shortage of Vitamin E apparently produces a lowered fertility rate and we know that some foodstuffs contain this vitamin in larger quantities than do others and further we know that one rich source of this vitamin is eaten in diminishing quantities by the populace.

It may be, though we can not yet speak with any certainty, that the declining birth rate is attributable to dietary deficiencies which are widespread among civilised communities. If this is so, and the truth may be forthcoming before many years have passed, we will be in possession of knowledge which would enable us to exert some influence upon the national birth rate.

The influence of prolonged deficiencies of certain dietary factors is but imperfectly understood. One which deserves close study is deficiency of phosphorus. It appears that some proportion of our population is existing on much less than an optimum intake of this element.

Abortions and Miscarriages. When the human ovum is fertilised it should develop into a healthy foetus which should be retained in the uterus for a period of about 280 days.

The preceding paragraphs indicate certain reasons for our declining birth rate and some of these factors are operative to terminate pregnancy prematurely. We have no certain knowledge as to the incidence of abortion. During 1934 practicing midwives in the town called in medical help in 16 cases of abortion. This is not the complete figure; for abortions occur which are not attended by either midwives or doctors. Some abortions are due to deliberate attempts to terminate the pregnancy. The frequency of such abortions, or attempts at abortion, is unknown. Illness and prolonged ill-health may follow abortion. The maternity and child welfare service takes every opportunity to impress upon women the physical dangers and, incidently, the criminality of induced abortions.

Abortions occur which are what may be termed involuntary. The causes of this class of abortion are various, and include acute illnesses, falls and other injuries. There remains the majority of abortions which take place without apparent cause. It appears not unlikely that a shortage of Vitamin E may be the predominant factor in these unsatisfactory endings to pregnancy. During 1934

further use has been made at the Ante-natal Centre at Oxford Terrace of a preparation of wheat germ extract which contains a high concentration of the vitamin. The results have been distinctly encouraging.

Premature Births and Neo-natal Deaths. The occurrence of premature births constitutes one of the major problems of Maternity and Child Welfare work, for it is responsible for the deaths of a large number of young infants each year. In some cases the cause of premature birth may be found in some pathological condition of the mother such as albuminuria of pregnancy but in many cases there appears to be no explanation except that there is an incapacity on the part of the mother to carry her child to full term. This may possibly be connected with a shortage of Vitamin E as suggested in the paragraphs of this report dealing with abortions.

Vitamin E. The use of Wheat Germ Oil Extract (Vitamin E) was continued during 1934 in suitable cases and with the further experience so gained it is possible now to state that the value of this preparation is considerable.

The good effects of administering this preparation leads to the supposition that some women suffer from a deficiency of this vitamin. The richest natural source of this substance appears to be the germ of cereals, particularly wheat, and the high milling to which wheat is subjected probably deprives ordinary white flour of most of it. Vitamin E is present, in lesser quantity, in green vegetables such as lettuce and spinach but these are not commonly eaten in large quantities by the poorer classes. There is also, in all probability, an animal source of this vitamin; it may be contained in liver.

The significant feature in the series of cases which has been treated by means of Vitamin E during the last two or three years in Stockton-on-Tees consists in the probability that it is a reasonable assumption that the large number of abortions, miscarriages, and premature births may be, in part, due to a shortage in the mother's body of Vitamin E. If this is so then a considerable advance has been made in the prevention of such unsatisfactory terminations of pregnancy and there is reason to hope that some control may be exercised over a portion of the neo-natal mortality rate. It is yet

too soon to dogmatise. The work will be carried on and further results reported.

CASES TREATED DURING 1934.

CASE No. 1. Age 30. Two previous miscarriages. No live children. Attended when two months pregnant. Vitamin E administered daily. Normal delivery of full time healthy child. Breast fed.

CASE No. 2. Age 30. Two previous miscarriages. No live children. Wasserman negative. Attended when two months pregnant. Not delivered at end of 1934 but was then seven and a half months pregnant and apparently normal.

CASE No. 3. Age 34. 8th pregnancy. 7th pregnancy terminated in miscarriage. Attended when three months pregnant. Vitamin E administered. Normal, full time delivery. Live child.

CASE No. 4. Age 36. 5th pregnancy. Attended when four months pregnant. One previous miscarriage and one still birth. Gave history of several small hæmorrhages and threatened abortion. Vitamin E administered. Normal, full time delivery. Live twins.

CASE No. 5. Age 36. 5th pregnancy. Had had four previous children, three forceps deliveries and one normal. The normal delivery followed treatment by Adexolin. Attended when about four and a half months to five months pregnant, with history of small hæmorrhages. Vitamin E administered. Normal, full time delivery. Live child.

CASE No. 6. Age 28. 4th pregnancy. 3rd pregnancy terminated in a mole. Attended when four months pregnant. Complained of sanious discharge. Vitamin E administered. Normal delivery, full time, live child.

CASE No. 7. Age 31. 6th pregnancy. Two previous miscarriages. Attended three—four months pregnant. Vitamin E administered. Normal progress. Not delivered at end of year.

CASE No. 8. Age 30. 5th pregnancy. One premature and one still birth. Attended when four months pregnant. Had had threatened abortion. Vitamin E administered. Normal, full time, live child.

ATTENDANCES AT CENTRES, 1934. TABLE 1.

Months	Centres					Ante-natal		Total
	No. 1	No. 2	No. 3	No. 4	No. 5	No. 1	No. 2	
January	... 451	794	542	257	217	74	25	2360
February	... 412	729	584	302	227	85	20	2359
March	... 431	761	559	353	213	94	24	2435
April	... 368	765	587	227	235	83	22	2287
May	... 466	753	443	377	157	117	17	2330
June	... 415	822	560	291	304	95	36	2523
July	... 383	1019	603	278	198	71	31	2583
August	... 384	434	269	257	233	75	30	1682
September	... 406	709	408	312	220	60	35	2150
October	... 458	1007	522	301	230	67	39	2610
November	... 389	836	436	368	289	103	52	2473
December	... 224	583	336	192	199	70	12	1616
Total	... 4787	9212	5849	3515	2722	994	343	27408
Total 1933	... 4686	9454	5358	3474	2966	1208	197	27343
Average Attendance per Session, 1934	95.7	105.9	124.4	70.3	54.4	20.3	13.2	76.3
Average Attendance per Session, 1933	93.7	102.7	114.0	69.4	59.3	24.2	19.4	76.6

Excluding the Ante-Natal Centres, the average attendance per session was 91.80, compared with 89.75 the corresponding figure for the preceeding year.

HOME VISITS PAID BY HEALTH VISITORS, 1934.

Months	To Infants under 1.		To Children.		To expectant Mothers		Total Visits Paid	
	First Visits	Total	1-5 Total		First Visits	Total	1934	1933
January	132	422	748		7	31	1201	784
February	95	405	871		11	42	1318	908
March	120	448	763		20	44	1255	1419
April	111	393	793		20	43	1229	1231
May	109	400	750		14	46	1196	1513
June	85	338	579		12	43	960	1080
July	100	395	765		26	53	1213	1115
August	94	392	767		19	43	1202	1255
September	82	335	650		21	46	1031	1130
October	126	414	811		12	39	1264	1184
November	89	428	837		21	53	1318	1387
December	74	342	608		13	36	986	1158
Total 1934	1217	4712	8942		196	519	16,173	14,164
Total 1933	1085	4589	9052		235	523	14,164	—

ATTENDANCES AT CENTRES, 1934. TABLE 2.

Month	No. of Births Notified	PRIMARY			INFANTS			ANTE-NATAL ATTENDANCES			TOTAL ATTENDANCES	
		Under 1 yr.	Over 1 yr.	Total	Under 1 yr.	Over 1 yr.	Total	Pri- mary	Re- peat	Total	1934	1933
Jan.	125	85	15	100	981	1180	2161	17	82	99	2360	2122
Feb.	96	71	15	86	988	1180	2168	13	92	105	2359	2197
March	123	66	12	78	1039	1200	2239	21	97	118	2435	2727
April	114	63	6	69	948	1165	2113	18	87	105	2287	2003
May	137	76	9	85	1016	1095	2111	19	115	134	2330	2750
June	97	71	8	79	1098	1215	2313	31	100	131	2523	2165
July	112	64	6	70	1182	1229	2411	12	90	102	2583	2434
Aug.	103	55	6	61	791	725	1516	18	87	105	1682	1858
Sept.	97	61	9	70	954	1031	1985	24	71	95	2150	2373
Oct.	129	79	14	93	1129	1282	2411	24	82	106	2610	2682
Nov.	94	78	14	92	1056	1170	2226	18	137	155	2473	2477
Dec.	96	37	3	40	691	803	1494	9	73	82	1616	1555
Total	1323	806	117	923	11873	13275	25148	224	1113	1337	27408	27343
1933	1260	784	148	932	11589	13417	25006	273	1132	1405	27343	—

INFANTILE MORTALITY.

Deaths under 1 week. The death of an infant who survives birth by less than seven days may usually be attributed to ante-natal or natal causes rather than to factors operative after birth.

During 1934, 43 children born in Stockton-on-Tees died within a week of birth. Investigations into the causes of these deaths yield the following information:—

In four cases the mother had received ante-natal care from a private practitioner. In two of these four cases the birth occurred prematurely and there does not appear to be any explanation for the early termination of pregnancy. In the other two cases difficult instrumental delivery appears to have been a factor in the decease of the children. Induction of labour or caesarian operation might have resulted in the birth of children capable of surviving.

Five cases had ante-natal care at the Municipal Ante-natal Centres. In one case the mother suffered from severe pulmonary tuberculosis. She attended the Ante-natal Centre once only. She later developed pneumonia and during the course of the pneumonia she gave birth to a premature infant. Mother and child both died. This woman was not in a fit state of health to bear a child. In another case the mother attended the Ante-natal Centre only once. She was anæmic, suffered from chronic bronchitis and gave birth to a feeble premature child. In another case the general health of the mother was poor; ante-partum hæmorrhage took place and the child survived birth only a few hours. One woman attending the Ante-natal Centre developed severe albuminuria and labour had to be induced at $6\frac{1}{2}$ months. The mother recovered but the child died. An anæmic mother whose general health was poor gave birth to a premature child.

In each of these cases there was some pathological condition present in the mother which rendered the successful termination of pregnancy doubtful. One infant, born in the Robson Maternity Home as a result of labour induced at the 6th month, died. The

mother suffered from nephritis of pregnancy and her condition was so serious that termination of the pregnancy was necessary, although it was doubtful if the infant was viable.

One case of ante-partum hæmorrhage in a woman aged 42, who had not had a child for 12 years; resulted in the death of the infant after a few hours.

In another case a woman gave birth, in the Maternity Home, to a seven months child. She had previously had three premature children and one miscarriage.

In 12 cases the mothers had received no ante-natal care. Three of these, born prematurely, suffered from congenital defects incompatible with separate existences and in other three cases there was illness of the mother during pregnancy. In six cases the cause of death was certified as due to prematurity but inquiries failed to elicit information which shed light upon the cause of the prematurity.

Deaths of Infants between 1 and 4 weeks old. Deaths of infants between the ages of one and four weeks may be due to pre-natal, natal, or post-natal causes.

Two deaths out of the 18 which fall within these limits were due to developmental defects and one to a blood defect. These three deaths were caused by factors operative during pregnancy.

In five cases prematurity was the apparent cause of failure to survive. Two of these infants were feeble twins. The mother had attended the Ante-natal Centre once only. She appeared to be ill, was poorly nourished and anæmic. In another case the apparent cause of feebleness and failure to live on the part of the baby was albuminuria of the mother.

One woman, who had had five previous difficult instrumental deliveries was advised to attend the Ante-natal Centre but refused. She had a further difficult instrumental delivery and the child died.

Two children of this age group died of broncho-pneumonia, one of cellulitis, one from convulsions following instrumental delivery,

one from marasmus following illness and anaemia of mother during pregnancy which was complicated by a threatened abortion. One death was certified as due to anaemia.

Death of Infants between the ages of one month and one year.

The number of deaths occurring between these two age groups amounted to 38.

The principal cause of death among children of this age was respiratory infection. The various forms of bronchitis and pneumonia exerts a heavy toll upon young children.

The birth-rate, the neo-natal mortality rate (deaths of infants under four weeks) and the infantile mortality rate (deaths under one year) for the past four years, compared with the average rates for the five-year period 1926-1930, are as follows :—

		Birth-rate.		Neo-natal mortality-rate.		Infantile death-rate.
1934	...	20'06	...	33	...	62
1933	...	17'91	...	46	...	96
1932	...	19'83	...	32	...	77
1931	...	19'92	...	34	...	79
1926-30	...	21'64	...	35	...	85

The following table illustrates in a striking way that the principal causes of death of infants under four weeks of age is associated with prematurity. Elsewhere in the report will be found a statement as to what is being attempted to reduce the occurrence of this condition.

From the age of one month onwards the majority of deaths is due to infections. Ability to withstand infection determines whether the child will live. It is interesting to note that twice as many children died from broncho-pneumonia (an infective condition) who did not attend the Child Welfare Centres as among those who did. The inference is that the nutritional teaching given at the centres influenced the resistance to infection by raising the general nutritional condition.

INFANT MORTALITY.

Net Deaths from stated causes at various ages under 2 years of age, 1934

CAUSES OF DEATH	Under 1 Week	1-2 Weeks	2-3 Weeks	3-4 Weeks	Total under 4 weeks	4 weeks and under 3 months	3 months and under 6 months	6 months and under 9 months	9 months and under 12 months	Total deaths under 1 Year	12 months and under 15 months	15 months and under 18 months	18 months and under 21 months	21 months and under 24 months	Total deaths under 2 years
Diphtheria	1	...	1
Measles	4	4	3	1	2	1	11
Whooping Cough
Tuberculous Meningitis	2	2
Abdominal Tuberculosis
Other Tuberculous Diseases	1	1	...	...	...	...	1
Convulsions	2	1	...	3	...	...	1	...	4	...	...	...	...	4
Bronchitis	1	1	...	...	1	...	1
Pneumonia (all forms)	...	2	..	...	2	3	3	2	1	11	1	1	...	2	15
Diarrhœa...	4	...	1	...	5	...	...	...	...	5
Enteritis
Gastritis...	1	1	...	...	2	...	...	...	...	2
Syphilis	1	...	1	...	...	...	...	1
Rickets
Atelectasis
Congenital Malformations	1	...	1	...	1	...	...	2	...	...	...	...	2
Premature Birth ...	21	3	1	2	27	1	1	...	...	29	...	...	...	...	29
Atrophy, Debility, and Marasmus	1	...	1	1	3	2	1	...	...	6	...	...	...	...	6
Inanition	1	...	1	...	...	...	...	1	...	...	...	...	1
Overlaying	1	...	...	1	...	...	...	...	1
Want of Attention at Birth
Violence
Other Causes	3	2	...	1	6	1	2	4	...	13	...	1	...	...	14
TOTALS	25	9	5	4	43	12	10	9	7	81	4	3	3	5	96

THE WORK OF THE ANTE-NATAL CENTRES.

The objects of ante-natal care and supervision are to enable women to produce healthy, full-term infants without danger to themselves.

There are two groups of factors concerned with reproduction. There is that group which is associated with the actual processes of pregnancy and delivery. As one example of this group one may instance the healthy woman whose baby develops normally to full term in the uterus but owing to contraction of the bony pelvis can not enter the world without difficulty. The difficulties associated with the passage of the infant to the outside world constitute dangers to the life and health of the infant and of the mother. Efficient ante-natal care would enable this difficulty to be recognised before labour commenced and preparations made to deal with the expected difficulty.

There is a further group of conditions not specifically associated with child bearing which may exert influence upon the progress of the pregnancy, upon the duration of the pregnancy, upon the course of the labour and upon the vitality of the child. The influences in this group are largely nutritional. They are not necessarily underfeeding as that term is generally understood but consist of deficiencies of certain constituents of the diet. In ancient Egypt bricks could not be made without straw and in modern England the maternal body cannot make a healthy vigorous baby unless there is a sufficiency of the natural building materials which are required to form a healthy child. Shortages are liable to occur in the following, among others, of these necessary materials :— first class protein, phosphorous, calcium, and iron among the minerals, and, in addition, some of the vitamins, particularly A, D and E.

These various substances are contained in sufficient quantities in a diet which is adequate in quantity and quality. The results of shortages of these substances manifests itself in interference with the normal process of development of the growing child within the mothers's body and also in the processes of birth and the mother's ability to breast feed the child after it is born.

Midwives and doctors, however skilled, can not, by obstetrical manipulations, influence the ill effects of such conditions.

The provision of skilled midwifery and medical attention for every confinement is desirable but there is a tendency to assume that the provision of these services would, alone, solve the problem of maternal deaths, of maternal illnesses and of loss of infant life. They would save many lives, particularly those endangered by the purely obstetrical difficulties included in the group of factors inimical to childbirth, but the mere attendance at the confinement of these skilled persons has little or no effect upon the difficulties caused by the second group. The importance of this second group is not sufficiently recognised.

The following table gives a summary of the cases attending the Ante-natal Centres during the year.

Preg- nancy	Delivery							Not Pregn't	Not Deliv'd	Left Town
	Normal	Instru- mental	Stillborn	Caesarian Section	Induced Labour	Abort- ions	Miscarr- iages			
1st	24	17	2	1	1	—	—	3	11	3
2nd	38	6	1	—	—	—	1	5	15	1
3rd	19	2	1	—	—	—	1	1	7	1
4th	25	2	—	—	—	—	—	1	7	2
5th	15	3	—	—	—	—	—	—	6	—
6th	9	1	—	—	—	—	1	—	7	—
7th	8	—	—	—	—	—	—	—	3	—
8th	9	—	—	—	—	1	—	—	1	—
9th	6	—	1	—	—	—	—	—	—	—
10th	4	—	—	—	—	—	—	—	1	—
11th	—	—	—	—	—	—	—	—	1	—
12th	2	—	—	—	—	—	—	—	—	—
13th	—	—	—	—	—	—	—	—	—	—
14th	1	—	—	—	—	—	—	—	—	—
Totals	160	31	5	1	1	1	3	10	59	7

It will be noted that out of a total of 191 actual deliveries, 31 were instrumental. The percentage of instrumental deliveries was highest amongst women having their first babies. Eight of these women had small pelvic measurements. The commonest cause of small pelvic measurements is rickets occurring during childhood which affects the normal development of the bones. It can not be definitely stated that in each of these cases rickets was definitely the cause of the small measurements but there is presumptive evidence that such was the case.

Defects Found. The defects found at the Ante-natal Centres during the year were :—

Anæmia	...	...	...	119
(The presence of anæmia was judged by clinical examination and did not include an examination of the blood).				
Albuminuria (slight)	...	...	...	8
Albuminuria (severe)	...	...	...	3
Septic Teeth	...	...	...	34
Varicose Veins	...	...	...	28
Vomiting (slight)	...	...	...	13
Vomiting (severe)	...	...	...	2

SUPERVISION OF MIDWIVES.

At the end of 1934, there were 25 midwives practising in the Borough, including 4 at the Robson Maternity Home and 1 at the Public Assistance Committee's Hospital.

These midwives attended 994 cases as midwives and 196 as maternity nurses during the year. (The former figure includes 313 births attended by midwives in the Robson Maternity Home and the latter figure 28 births attended by midwives in the Home acting as maternity nurses).

During the year medical help was sent for by midwives on 486 occasions. The percentage of births attended by midwives in which it was found necessary to call in medical aid was therefore 48·8, or if the cases occurring in the Robson Maternity Home are excluded 61%. The percentage of cases in which medical aid was summoned by a midwife in the Robson Maternity Home was 22.

432 accounts were received from doctors in respect of fees for attendance on cases in which they had been summoned by midwives. The total amount of there accounts was £738, an increase of £151 on last year's figure. In 72 cases, or 14% of the cases in which they were called in, notices were received from doctors stating that they considered it necessary to continue attendance on the patient for a longer period than 10 days.

The following notices were received from midwives during the year, in addition to the 486 notices summoning medical help referred to above.

Death of child	...	20
Stillbirth	...	31
Artificial feeding	...	20
Laying out dead body	...	21
Liability to be a source of infection	...	18
Death of mother	...	2
Pemphigus	...	3
Rise of temperature	...	1
		—
Total		116
		—

26 inspections of midwives were carried out during the year.

Municipal Maternity Home. A municipal maternity home forms an important link in the chain of social services provided by Local Authorities. Whereas not many years ago expectant mothers viewed maternity homes with suspicion, they are now so desirous of availing themselves of these institutions that great indignation is expressed if accommodation is not available for all who desire it.

In 1918 the late Mr. Isaac Robson presented a house in Bowesfield Lane to the Town for the purpose of a maternity home. The home was equipped for nine beds and was opened early in 1919.

In 1924 the pressure upon the accommodation was so great that three additional beds were provided by re-arranging the allocation of the rooms, bringing the accommodation up to 12 beds.

The number of patients admitted and the number of births each year since the establishment of the Home has been as follows :—

Year	No. of Cases Admitted	No. of Births
1919 (April to December)	60	60
1920	244	222
1921	262	256
1922	224	217
1923	240	236
1924	219	210
1925	263	230
1926	288	274
1927	280	268
1928	266	259
1929	287	275
1930	309	298
1931	331	320
1932	347	328
1933	355	339
1934	356	341
Totals ...	<hr/> 4331 <hr/>	<hr/> 4133 <hr/>

In 1929 a scheme was prepared for further extending the Home. The Scheme was to be a four stage one, consisting of :—

- (1) The building of an ante-natal department and two extra bedrooms for the nursing staff.
- (2) The building of a new kitchen department
- (3) The building of additional nurses bedrooms, bathrooms, etc. To be built over the ante-natal department.
- (4) The building of a small Isolation Block.

The first stage of this scheme was proceeded with and completed at a cost of £500.

In January 1931, I asked the Committee to give consideration to the question of proceeding with the next stage of the extensions but in the Autumn of that year it was decided that schemes involving additional expenditure should be held up for the time being.

Subsequent to this date discussions have taken place on various occasions as to the best means of increasing the accommodation. Certain schemes for modernising the present Home and taking in adjoining houses were suggested and I was reluctantly compelled to point out that they would be of a makeshift character and would be unsatisfactory in the long run. Consideration was then given to the possibility of adapting various large existing houses in the Borough but after prolonged discussion it was eventually decided that the premises inspected were not capable of satisfactory adaption. The Town was then faced with the considerable capital expenditure of building a completely new maternity home. This was the position at the end of 1934. At the moment of writing, however, the Town has just received a very generous offer from Sir John Harrison, of the gift of a large residence just outside the boundary of the Borough for use as a maternity home.

The Robson Maternity Home continues to be one of the most economically run Homes in the country. The cost per patient week for the year ended March 31st, 1934, including loan charges, was £2 11s. 1'4d., and excluding loan charges, £2 9s. 11'4d. This is about 10d. per patient week lower than the cost for the previous year. This low cost is only maintained by keeping the beds fully occupied. During the year covered by the Return the percentage of beds occupied was 100.

The fee ordinarily charged to patients is 35/- for a period of twelve days which is the normal duration of stay. Emergency cases are admitted to the Home from Billingham Urban District under agreement with the Durham County Council at a fee of £3 3s. 0d. per week per patient.

Information with regard to the working of the Home is summarised below :—

Number of maternity cases admitted during the year	356
Average duration of stay	... 12'8 days
Number of cases delivered by—	
(a) Midwives	... 313
(b) Doctors	... 28

Number of cases in which medical assistance was
sought by a midwife in emergency ... 69

Number of cases notified as—

(a) Puerperal Fever ... Nil

(b) Puerperal Pyrexia ... 5

Number of cases of Pemphigus Neonatorum ... Nil

Number of Infants not entirely breast fed while in
the Institution ... 10

Number of cases notified as Ophthalmia Neonatorum Nil

Number of Maternal Deaths ... 2

Cause of death in each case—

(1) Cardiac failure; pulmonary oedema;
albuminuria of pregnancy; myocardial
degeneration; obesity.

(2) Gross secondary anæmia; subacute nephritis;
pregnancy and parturition; malnutrition—
too frequent pregnancies.

Number of Infant deaths—Stillborn ... 14

Within 10 days of birth 9

Cause of death in each case :—

(i) Macerated ... 9	(ii) Prematurity ... 5
Prolapse of cord ... 1	Debility ... 2
Difficult delivery ... 1	Toxaemia of mother 2
Monster ... 1	
Toxaemia of mother 2	

SECTION H.—DISEASES OF ANIMALS ACTS.

Swine Movement Order, 1922. During the year 1934 the following licences were issued under the above Order, compared with the figures for the two previous years.

	Number of Licences issued.			Number of Swine moved.		
	1934	1933	1932	1934	1933	1932
Fat Swine	1,833	1,909	1,855	15,248	15,575	15,601
Store „	1,572	1,672	1,781	10,313	11,006	12,322
Totals ...	<u>3,405</u>	<u>3,581</u>	<u>3,636</u>	<u>25,561</u>	<u>26,581</u>	<u>27,923</u>

Licences issued for the movement of swine out of the Borough were as follows—

	Number of Licences issued.			Number of Swine moved.		
	1934	1933	1932	1934	1933	1932
Fat Swine	1,217	1,637	1,189	10,018	13,934	11,176
Store „	1,517	1,400	1,450	8,874	9,362	10,309
Totals ...	<u>2,734</u>	<u>3,037</u>	<u>2,639</u>	<u>18,892</u>	<u>23,296</u>	<u>21,485</u>

Licences received for swine brought into the Borough were as follows—

	Number of Licences.			Number of Swine moved.		
	1934	1933	1932	1934	1933	1932
Fat Swine	243	188	207	1,463	1,526	1,554
Store „	42	42	38	391	333	200
Totals ...	<u>285</u>	<u>230</u>	<u>245</u>	<u>1,854</u>	<u>1,859</u>	<u>1,754</u>

Swine Fever. 11 reports of suspected swine fever were received during the year. In 5 of the cases the premises were placed under Form “A” and in 6 under Form “B.” The premises were under restrictions for periods varying from 4 to 22 weeks.

Sheep Scab. Contacts from 11 outbreaks of sheep scab numbering 477 sheep were exposed in the Cattle Market, 15 weekly markets being affected. The sheep were all traced and either double dipped or slaughtered.

Sheep (Movement into Scotland and Northumberland) Order of 1933. 19 licences covering 284 sheep and lambs were issued during the year.

Importation of Animals Act, 1922. One consignment of 16 head of cattle were brought into the Borough. The quarantine regulations were properly carried out.

Importation of Dogs and Cats Order, 1928 and other Quarantine Orders. 5 notifications were received from the Customs Officers of ships arriving with dogs on board. These were all effectively kept under control during the stay of the vessels and removed on the same vessels.

Conveyance of Live Poultry Order, 1911.

Packing Materials Order, 1925.

Movement of Animals (Records) Order.

Movement of Animals by Road Vehicles (Records) Order.

Importation of Meat (Wrapping Materials) Order of 1932.

These Orders have been satisfactorily carried out during the year.

Transit and General Order, 1917. The cleansing of cattle trucks, boxes, storage pen and yard has been well carried out by the L. & N.E. Railway Co., during the year.

No cases of Foot and Mouth Disease, Anthrax, Parasitic Mange, Glanders, Farcy or Sheep Pox occurred during the year.

Transit of Animals (Amendment) Order of 1931. The amount collected for the disinfection of vehicles in the Cattle Market during the year ended December 31st, 1934, was £74 2s. 0d., compared with £83 12s. 3d., in 1933, and £86 14s. 0d. in 1932.

Cattle Market. The following Table shows the number of animals which passed through the Cattle Market during the year 1934, compared with the figures for the preceding two years.

	1934	1933	1932
Milch Cows ...	628	450	544
Fat Cattle ...	5790	4823	4604
Grazing Cattle ...	214	273	222
Calves ...	2391	1476	1273
Sheep and Lambs	31718	33278	30140
Swine ...	25561	26581	27923
	<hr/>	<hr/>	<hr/>
	66302	66881	64706
	<hr/>	<hr/>	<hr/>

APPENDIX

BIRTH RATES, DEATH RATES AND ANALYSIS OF MORTALITY, DURING THE YEAR 1934
ENGLAND & WALES, 121 COUNTY BOROUGH & GREAT TOWNS, 135 SMALLER TOWNS, AND STOCKTON-ON-TEES.

(Provisional figures The rates for England and Wales, and Stockton-on-Tees, have been calculated on a population estimated to the middle of 1934, but those for London and the towns have been calculated on populations estimated to the middle of 1933.

	RATE PER 1,000 POPULATION		ANNUAL DEATH-RATE PER 1,000 POPULATION.								RATE PER 1,000 LIVE BIRTHS		PERCENTAGE OF TOTAL DEATHS					
	Live Births	Still-Births	All Causes	Typhoid and Paratyphoid Fevers	Small-pox	Measles	Scarlet Fever	Whooping cough	Diphtheria	Influenza	Violence	Diarrhoea and Enteritis (under 2 yrs.)	Total Deaths under 1 year	Certified by Registered Medical Practitioners	Inquest Cases	Certified by Coroner after P.M.	No Inquest	Uncertified Causes of Death
England and Wales ...	14.8	0.62	11.8	0.00	0.00	0.09	0.02	0.05	0.10	0.14	0.54	5.5	59	90.4	6.5	2.1		1.0
121 County Boroughs and Great Towns, including London ...	14.7	0.66	11.8	0.00	0.00	0.12	0.02	0.06	0.11	0.12	0.47	7.4	63	90.5	6.1	2.9		0.5
135 Smaller Towns (Estimated Resident Populations 25,000 to 50,000 at Census 1931) ...	15.0	0.67	11.3	0.00	—	0.07	0.02	0.04	0.09	0.14	0.42	3.6	53	91.2	6.1	1.6		1.1
London ...	13.2	0.50	11.9	0.00	0.00	0.20	0.02	0.07	0.11	0.12	0.56	12.6	67	87.7	6.3	6.0		0.0
Stockton-on-Tees ...	19.23	0.83	12.15	0.01	—	0.23	0.09	—	0.03	0.13	0.46	3.86	62	93.5	3.9	1.1		1.5

		Puerperal Sepsis.	Others.	Total.
The maternal mortality rates for England & Wales are as follows :	{ per 1,000 Live Births	...	2.57	4.60
	{ " " Total Births	...	2.46	4.41
	{ per 1,000 Live Births	...	2.31	4.62
	{ " " Total Births	...	2.22	4.44

CAUSES OF DEATH IN STOCKTON-ON-TEES, 1934.

CAUSE OF DEATH	Total	Males	Females
ALL CAUSES ...	817	445	372
1—Typhoid and paratyphoid fevers	1	—	1
2—Measles ...	16	12	4
3—Scarlet Fever ...	6	3	3
4—Whooping cough ...	—	—	—
5—Diphtheria ...	2	—	2
6—Influenza ...	9	6	3
7—Encephalitis lethargica ...	—	—	—
8—Cerebro-spinal fever... ..	1	—	1
9—Tuberculosis of respiratory system ...	51	29	22
10—Other tuberculous diseases ...	16	5	11
11—Syphilis ...	2	1	1
12—General paralysis of the insane, tabes dorsalis ...	4	4	—
13—Cancer, malignant disease ...	94	46	48
14—Diabetes ...	8	3	5
15—Cerebral hæmorrhage ...	47	25	22
16—Heart Disease ...	163	85	78
17—Aneurysm ...	2	2	—
18—Other circulatory diseases ...	44	24	20
19—Bronchitis ...	21	14	7
20—Pneumonia (all forms) ...	72	43	29
21—Other respiratory diseases ...	11	6	5
22—Peptic ulcer ...	10	8	2
23—Diarrhœa, &c. (under 2 years)	5	4	1
24—Appendicitis ...	5	—	5
25—Cirrhosis of Liver ...	4	3	1
26—Other diseases of liver, etc. ...	2	1	1
27—Other digestive diseases ...	23	8	15
28—Acute and chronic nephritis ...	27	16	11
29—Puerperal sepsis ...	3	—	3
30—Other puerperal causes ...	3	—	3
31—Congenital debility, premature birth, malformations, &c. ...	44	24	20
32—Senility ...	27	14	13
33—Suicide ...	4	4	—
34—Other violence ...	27	18	9
35—Other defined diseases ...	63	37	26
36—Causes ill-defined or unknown	—	—	—
Special Causes (included in No. 35 above) —			
Small-pox ...	—	—	—
Poliomyelitis ...	—	—	—
Polioencephalitis ..	—	—	—
Deaths of Infants under 1 year—			
Total ...	81	43	38
Legitimate ...	77	41	36
Illegitimate...	4	2	2
LIVE BIRTHS—Total ...	1293	644	649
Legitimate ...	1238	619	619
Illegitimate...	55	25	30
STILL BIRTHS—Total ...	56	32	24
Legitimate ...	48	29	19
Illegitimate...	8	3	5
Population ...	...	67,220.	

